

IN THE CLAIMS

Please amend the remaining claims as follows:

- 1 1. (currently amended) A switched node for use in a computer network comprising:
- 2 (a) switching circuitry comprising more than two bi-directional ports for simultaneously
- 3 transmitting data in multiple dimensions through the computer network;
- 4 (b) a disk for storing data and a head actuated over the disk for writing data to and
- 5 reading data from the disk; and
- 6 (c) a reservation facility for reserving resources ~~associated with data read from the disk~~
- 7 ~~and written to the disk~~ for reading data from the disk and writing data to the disk to
- 8 support a predetermined Quality-of-Service constraint with respect to data transmitted
- 9 through the computer network.
- 1 2. (currently amended) The switched node of claim 1, wherein the resources comprise
- 2 memory for buffering the data read from the disk and written to the disk.
- 1 3. (original) The switched node of claim 1, wherein the switching circuitry comprises a
- 2 plurality of virtual lanes and the resources comprise at least one of the virtual lanes.
- 1 4. (original) The switched node of claim 3, wherein each virtual lane comprises a
- 2 predetermined priority level.
- 1 5. (currently amended) The switched node of claim 3, wherein the transmitted data is
- 2 queued within each virtual lane in order of arrival into the switched node.
- 1 6. (currently amended) The switched node of claim 3, wherein the transmitted data is
- 2 queued within each virtual lane with respect to transmission deadlines associated with the
- 3 transmitted data.

1 7. (original) The switched node of claim 1, wherein the switching circuitry comprises
2 processing circuitry and the resources comprise at least part of the processing circuitry.

1 8. (currently amended) The switched node of claim 1, wherein:
2 (a) the switching circuitry comprises linking circuitry for linking to a plurality of other
3 switched nodes in the computer network;
4 (b) the linking circuitry comprises a limited bandwidth; and
5 (c) the resources comprise at least part of the linking circuitry bandwidth.

1 9. (original) The switched node of claim 1, wherein:
2 (a) the switching circuitry comprises adapter circuitry for connecting to an external
3 entity; and
4 (b) the resources comprise at least part of the adapter circuitry.

1 10. (currently amended) The switched node of claim 1, wherein the reservation facility limits
2 movement of the head so as to constrain the head to a predetermined region of the disk,
3 thereby reserving a resource within the switched ~~fabric storage~~ node.

- 1 11. (original) A method of reserving resources in a computer network to support a
2 predetermined Quality-of-Service constraint with respect to a new access request to
3 transmit data between a disk drive and a client computer, the computer network
4 comprising a plurality of interconnected computer devices including a plurality of disk
5 drives, each disk drive comprising a head and a disk, the method comprising the steps of:
6 (a) finding at least one disk drive out of the plurality of disk drives that can service the
7 new access request while supporting the Quality-of-Service constraint for the new and
8 existing access requests; and
9 (b) reserving resources within the at least one disk drive to service the new access request.
- 1 12. (currently amended) The method of reserving resources as recited in claim 11, wherein
2 the resources comprise memory for buffering the transmitted data.
- 1 13. (original) The method of reserving resources as recited in claim 11, wherein the resources
2 comprise network circuitry for communicating with the computer network.
- 1 14. (currently amended) The method of reserving resources as recited in claim 13, wherein:
2 (a) the network circuitry comprises multi-port switching circuitry for simultaneously
3 transmitting the transmitted data in multiple dimensions through the computer
4 network; and
5 (b) the resources comprise a virtual lane within the multi-port switching circuitry.
- 1 15. (original) The method of reserving resources as recited in claim 14, wherein each virtual
2 lane comprises a predetermined priority level.

1 16. (currently amended) The method of reserving resources as recited in claim 14, wherein
2 the transmitted data is queued within each virtual lane in order of arrival into the
3 switched node.

1 17. (currently amended) The method of reserving resources as recited in claim 14, wherein
2 the transmitted data is queued within each virtual lane with respect to transmission
3 deadlines associated with the data.

1 18. (original) The method of reserving resources as recited in claim 14, wherein the multi-
2 port switching circuitry comprises processing circuitry and the resources comprise at
3 least part of the processing circuitry.

1 19. (currently amended) The method of reserving resources as recited in claim 14, wherein:
2 (a) the multi-port switching circuitry comprises linking circuitry for linking a plurality of
3 nodes in the computer network;
4 (b) the linking circuitry comprises a limited bandwidth; and
5 (c) the resources comprise at least part of the linking circuitry bandwidth.

1 20. (original) The method of reserving resources as recited in claim 14, wherein:
2 (a) the multi-port switching circuitry comprises adapter circuitry for connecting to an
3 external entity; and
4 (b) the resources comprise at least part of the adapter circuitry.

1 21. (original) The method of reserving resources as recited in claim 11, wherein the step of
2 reserving resources comprises the step of limiting movement of the head so as to
3 constrain the head to a predetermined region of the disk.

- 1 22. (original) A computer network comprising:
2 (a) a plurality of interconnected computer devices including a plurality of client
3 computers and a plurality of disk drives for storing network data, each disk drive
4 comprising a head and a disk;
5 (b) a plurality of interconnected nodes; and
6 (c) a reservation facility for reserving resources within the disk drives and the nodes to
7 support a predetermined Quality-of-Service constraint with respect to data transmitted
8 between the disk drives and the client computers through the nodes of the computer
9 network.
- 1 23. (currently amended) The computer network of claim 22, wherein the resources comprise
2 memory for buffering transmitted data.
- 1 24. (original) The computer network of claim 22, wherein the resources comprise network
2 circuitry for communicating with the computer network.
- 1 25. (currently amended) The computer network of claim 24, wherein:
2 (a) the network circuitry comprises multi-port switching circuitry for simultaneously
3 transmitting the transmitted data in multiple dimensions through the computer
4 network; and
5 (b) the resources comprise a virtual lane within the multi-port switching circuitry.
- 1 26. (currently amended) The computer network of claim 25, wherein the transmitted data is
2 queued within each virtual lane in order of arrival into the switched node.

1 27. (currently amended) The computer network of claim 25, wherein the transmitted data is
2 queued within each virtual lane with respect to transmission deadlines associated with the
3 data.

1 28. (original) The computer network of claim 25, wherein the multi-port switching circuitry
2 comprises processing circuitry and the resources comprise at least part of the processing
3 circuitry.

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1 29. (original) The computer network of claim 25, wherein:
2 (a) the multi-port switching circuitry comprises linking circuitry for linking the nodes in
3 the computer network;
4 (b) the linking circuitry comprises a limited bandwidth; and
5 (c) the resources comprise at least part of the linking circuitry bandwidth.


1 30. (original) The computer network of claim 25, wherein:
2 (a) the multi-port switching circuitry comprises adapter circuitry for connecting to an
3 external entity; and
4 (b) the resources comprise at least part of the adapter circuitry.

1 31. (original) The computer network of claim 22, wherein the reservation facility limits
2 movement of the head so as to constrain the head to a predetermined region of the disk,
3 thereby reserving a resource within the disk drive.

1 32. (currently amended) The computer network of claim 22, wherein each node comprises
2 multi-port switching circuitry for simultaneously transmitting the transmitted data in
3 multiple dimensions through the computer network.

1 33. (original) A computer network comprising:

- 2 (a) a plurality of interconnected computer devices including a plurality of disk drives for
3 storing network data, the disk drives each comprising a head and a disk;
4 (b) a plurality of interconnected nodes; and
5 (c) a reservation facility for reserving resources within the disk drives and the nodes to
6 support a predetermined Quality-of-Service constraint with respect to data transmitted
7 between the disk drives through the nodes of the computer network.

 1 34. (currently amended) A switched fabric computer network comprising:

- 2 (a) a plurality of interconnected nodes for simultaneously transmitting data in multiple
3 dimensions through the computer network, each node comprising:
4 switching circuitry comprising more than two bi-directional ports;
5 a disk for storing data; and
6 a head actuated over the disk for writing data to and reading data from the disk;
7 (b) a reservation facility for reserving resources associated with ~~data read from the disk~~
8 ~~and written to the disk~~ reading data from the disk and writing data to the disk to
9 support a predetermined Quality-of-Service constraint with respect to data transmitted
10 between the interconnected nodes and client computers connected to the switched
11 fabric computer network; and
12 (c) a scheduling facility, responsive to the resources reserved by the reservation facility,
13 for scheduling the transmission of the transmitted data through the interconnected
14 nodes to support the predetermined Quality-of-Service constraint.

1 35. (currently amended) The switched fabric computer network of claim 34, wherein the
2 resources comprise memory for buffering the transmitted data.

1 36. (original) The switched fabric computer network of claim 34, wherein the resources
2 comprise network circuitry for communicating with the switched fabric computer
3 network.

1 37. (original) The switched fabric computer network of claim 34, wherein:
2 (a) the switching circuitry comprises a plurality of virtual lanes; and
3 (b) the resources comprise at least one of the virtual lanes.

1 38. (currently amended) The switched fabric computer network of claim 37, wherein the
2 transmitted data is queued within each virtual lane in order of arrival into the switched
3 node.

1 39. (currently amended) The switched fabric computer network of claim 37, wherein the
2 transmitted data is queued within each virtual lane with respect to transmission deadlines
3 associated with the data.

1 40. (original) The switched fabric computer network of claim 34, wherein the switching
2 circuitry comprises processing circuitry and the resources comprise at least part of the
3 processing circuitry.

1 41. (currently amended) The switched fabric computer network of claim 34, wherein:
2 (a) the switching circuitry comprises linking circuitry for linking to a plurality of other
3 switched nodes in the computer network;
4 (b) the linking circuitry comprises a limited bandwidth; and
5 (c) the resources comprise at least part of the linking circuitry bandwidth.

1 42. (original) The switched fabric computer network of claim 34, wherein:

2 (a) the switching circuitry comprises adapter circuitry for connecting to an external
3 entity; and

4 (b) the resources comprise at least part of the adapter circuitry.

1 43. (original) The switched fabric computer network of claim 34, wherein the reservation
2 facility limits movement of the head so as to constrain the head to a predetermined region
3 of the disk, thereby reserving a resource within the node.
